



PATENT ABSTRACTS OF JAPAN

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HOSOYA MASAYUKI(54) ROLLER BEARING FILLED WITH LUBRICANT
CONTAINED POLYMER AND MANUFACTURE
THEREOF

polymer 6 into the gap therebetween, which worn powder is gradually separated by one rotation of the ball bearing 1 to contribute lubrication. Accordingly, the smooth ball rotation is ensured with low torque over a long period of time from the initial stage of operation.

(57) Abstract:

PROBLEM TO BE SOLVED: To ensure a smooth rotation irrespective of kinds of lubricant contained polymer to be filled by forming coating of solid lubricant at least on the inner circumferential surface of an outer ring and the outer circumferential surface of an inner ring and the surface of rolling bodies.

SOLUTION: A ball bearing 1 is assembled in its bearing by a conventional method, then, after degreasing and washing steps are performed, coating 5 composed of solid lubricant is formed on the inner circumferential surface of an outer ring 2, the outer circumferential surface of an inner ring 3, and the surface of a ball 4, and lubricant-contained polymer 6 is filled in a space defined by the rings 2, 3 and the ball 4. As the solid lubricant polytetrafluoroethylene, graphite, fluoride, or the like is for example used, through there is no special limitation to the selection while as the lubricant-contained polymer 6 those composed of thermoplastic resin such as polyethylene, grease and lubricant are for example used, through there is no special limitation to the selection. With this constitution, the outer ring 2, the inner ring 3 and the ball 4 are not in contact with each other, and coating 5 prevents the intrusion of worn powder of lubricant

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